

ovary distinctly I can confidently state that it did not then exist in tangible form. Both history and vaginal examination pointed to prior salpingitis of moderate degree of the tube which became pregnant, while the healthy right tube adjacent to the tumour was free. Increased vascularity of the pelvic viscera consequent upon the pregnancy would doubtless explain the rapid growth of a previously small, or even latent and potential, cyst in the ovary.

Improved methods of diagnosis and more frequent operations have demonstrated that extra-uterine cyesis is by no means so rare as was thought at one time; and diversity of race and modes of life would not seem to have much influence on its frequency. During three years' official and private practice in this particular district of Fiji, among a limited but polyglot community, I have met with three other instances of it besides the one here related. The diagnosis was confirmed in two of these cases by operation after rupture and in the third post mortem, the patient having succumbed immediately after admission to hospital. In each case the Fallopian tube was the site of the pregnancy.

Some authorities have denied that prior salpingitis is an etiological factor, considering that a healthy tube is more likely to become the nidus of an ovum than one the lining membrane of which is altered by disease. But the frequency with which a clear history of former tubal inflammation can be obtained from the subjects of ectopic gestation is so great that it is difficult to resist the conclusion that it must play an important if not essential rôle in the production of this abnormality. Out of a good many cases of the kind which I saw in the past at hospitals in London with which I was connected I cannot call to mind one of which this was not true and my four patients have all had a history indicative of former tubal disease. Of these women one was, like the subject of this paper, a European; the others were Hindu coolies (indentured immigrants). The latter class do hard outdoor work in the sugar-cane fields in all weathers and gonorrhoea is very prevalent among them. I have successfully removed suppurating Fallopian tubes from three of them in this part of Fiji and I have seen many others with symptoms and physical signs of salpingitis. I have not met with a case of ectopic gestation in a native woman, and I do not think that one has ever been observed. Their disinclination to apply for European medical aid would, however, account for this; and inquiries among them lead me to think that the Fijian woman is, like her sisters of other complexions and in other lands, occasionally the victim of this catastrophe.

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ON THE VALUE OF THE HIGH-FREQUENCY SPARK AS A LOCAL APPLICATION.

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In July, 1904, a medical man came to me to ask if I would apply the high-frequency current to his head for alopecia areata. He had suffered from this for several years and had tried everything ever suggested for this disease and concurrently had consulted and followed the advice of most of the more eminent dermatologists in England and abroad. I, of course, consented to do so, stating at the same time that I did not expect much good would result. I used a vacuum glass electrode connected to the top of the resonator, rubbing the electrode over the bald patches until a bright erythema was produced, which in this case did not take more than three or four minutes to each patch. Treatment in this manner was carried out three or four times a week for about three weeks and was then interrupted by the summer holidays. In September the patches were much smaller and fine hairs were seen to be growing in from the edges of each patch. Treatment was resumed, though not quite so frequently, for a little over two months. Hair was then growing vigorously all over the previously bald patches and by the end of the year the patient had a splendid head of hair which has maintained its good condition ever since.

From subsequent experience I have learned that the success obtained in this case was in all probability due to

the ease with which hyperæmia was produced, and according as this is easy or difficult one can predict with a fair amount of certainty how far one is likely to be successful in any given case. In one case that I worked at vigorously for quite two months no good was done and the production of hyperæmia was most difficult, requiring severe sparking for a long time, and it faded away very rapidly afterwards.

In ordinary and premature alopecia, so long as the hair bulbs have not disappeared by atrophy and provided a good hyperæmia can be easily induced which persists for some hours after each application, much good of a lasting kind can be done and it is a method of treatment which ought to be in much more frequent use.

I am of the opinion that in the high-frequency spark we have a most valuable form of local stimulant which seems to have properties peculiarly its own and one the action of which is under perfect control in the hands of a person accustomed to its use. In this connexion I may say that I have employed it in an old-standing case of acne vulgaris and the rapidity with which the unsightly spots disappeared after some half-dozen applications was as surprising as it was satisfactory. The cure was, of course, not permanent, but with occasional applications the disease is easily kept under control and the method is found much more agreeable to the patient than those usually employed.

Another most valuable application of the high-frequency spark is in the treatment of port-wine marks. My first case was that of a young man who came to the London Hospital with a deep red patch of about the size of a penny on his right cheek. As I had been trying to do some good in similar cases by means of a fine galvano-cautery and by electrolysis, with indifferent results, I decided to try the high-frequency spark. For this purpose I used a metallic point electrode mounted on an insulated handle and connected with the top of the resonator. The point was held about one inch from the surface so that a hot white spark jumped across the intervening space. This was continued for several minutes until vesication was produced over the entire surface of the patch. There was no soreness afterwards worth mentioning and in about eight days the old epidermis peeled off, leaving a smooth surface, pink from the remains of inflammatory reaction, but otherwise quite like normal skin.

Another case was that of a young woman with several small stains scattered over the left side of the neck and lower jaw. Gentle treatment being desired I used a vacuum glass electrode, holding it about half an inch from the skin. This method is a more comfortable one but is not so efficient and takes a longer time. The result in this case was also quite successful.

In the last two cases the capillary vessels were confined to the superficial layers of the skin, and in all such cases this method of treatment offers little difficulty. Where the vessels extend more deeply vigorous treatment is necessary which may have to be repeated several times. I have now under treatment the most severe case I have attacked by this means. The nævus extends over the side of the neck, the cheek, the orbit, the side of the nose, and the upper lip. It is, or was, of a vivid red colour which was only partially removed by pressure. The case was one much too extensive to treat by any of the ordinary methods and I am not at all sure that the high-frequency treatment will be completely successful. The fact remains, however, that each application to any given part is followed by the removal of more or less of the redness, after the resulting inflammation has had time to subside. In those parts which have been treated twice—full time for complete subsidence of the inflammation being given after each—the redness is reduced by at least one-half. The patient is greatly encouraged and after going over these parts a third time it is believed that the discoloration will be so far reduced as no longer to constitute a serious disfigurement.

From such experience as I have had I have no hesitation in saying that port wine stains or marks, which at times constitute a very serious disfigurement, can be entirely removed by this method when they are only of moderate depth and extent, while the more severe cases can be at least very greatly improved.

A great advantage of the method is that the normal texture of the skin is quite unimpaired—there is nothing approaching a scar—thus differing from chemical agents and electrolysis. A further advantage is that it is under the most perfect control and no further reaction takes place than is desired.

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